

AMENDMENTS TO THE SPECIFICATION

Please amend paragraph [0020] as follows:

[0020] FIGS. ~~1(a)~~—~~1(d)~~ 1A-1D represent a typical PEPSM, wherein FIG. ~~1(a)~~ 1A is a cross-sectional view of the PEPSM, FIG. ~~1(b)~~ 1B is a graph of an electromagnetic field on a mask, FIG. ~~1(c)~~ 1C is a graph of an electromagnetic field on a wafer, and FIG. ~~1(d)~~ 1D is a graph of the optical intensity on the wafer.

Please amend paragraph [0025] as follows:

[0025] Referring to FIG. ~~1(a)~~ 1A, the PEPSM 10 is formed of a quartz substrate 11 in which a trench 15 is formed. The trench 15 is formed by anisotropically etching a predetermined portion of the quartz substrate 10. In the PEPSM 10, the region where the trench is formed is a 180° region, while the region of the quartz substrate 11 where the trench 15 is not formed is a 0° region.

Please amend paragraph [0030] as follows:

[0030] If light is directed through the PEPSM 10, the light experiences a phase shift at a sidewall of the trench 15 of the PEPSM 10 as shown in FIG. ~~1(b)~~ 1B, and the phase shift is less pronounced at the wafer than at the PEPSM 10 as shown in FIG. ~~1(c)~~ 1C. Meanwhile, as illustrated in FIG. ~~1(d)~~ 1D, the optical intensity of the exposure light on the wafer is decreased at a region (A) where a pattern is formed, region (A) corresponding to the sidewall of the trench 15 of the PEPSM 10. The width of the region (A) can be made very fine using the PEPSM, i.e., a photoresist pattern having a fine line width can be produced using the PEPSM. Accordingly, fine patterns such as a gate electrode can be formed using the photoresist pattern as an etch mask.

Please amend paragraph [0080] as follows:

[0080] The above and other objects, features and advantages of the present invention will become more apparent from the following detailed description of the preferred embodiments thereof made with reference to the attached drawings, in which:

FIG. ~~1(a)~~ 1A is a cross-sectional view of a conventional PEPSM;

FIG. ~~1(b)~~ 1B is a graph of an electromagnetic field of exposure light on the conventional PEPSM;

FIG. ~~1(c)~~ 1C is a graph of an electromagnetic field on a wafer exposed to light directed through the conventional PESM;

FIG. ~~1(d)~~ 1D is a graph of the intensity of the exposure light on the wafer;

FIG. 2 is a cross-sectional view of another type of a conventional PEPSM;

FIG. 3(A) is a cross-sectional view of a PEPSM according to the present invention;

FIG. 3(B) is a graph of optical characteristics of the PEPSM according to the present invention;

FIG. 4 is a graph showing the line width of a photoresist pattern with respect to the line width of an auxiliary pattern of the PEPSM according to the present invention; and

FIGS. 5A through 5C are cross-sectional views of the PEPSM during its manufacture and thus collectively illustrate a method of fabricating the PEPSM according to the present invention.

Please amend paragraph [0110] as follows:

[0110] Referring to FIG. 5A, a quartz substrate 105 is prepared as follows. A shield layer (not shown) is formed on a quartz plate such that a predetermined portion of the quartz plate is exposed. The exposed portion of the quartz plate is anisotropically etched to a predetermined depth to form a trench 110 therein. The depth of the trench 110 is designed so as to shift the phase of light by 180° during an exposure process in which exposure light of a given wavelength is directed through the mask. The shield layer is then removed by a known method.

Please amend paragraph [0120] as follows:

[0120] Next, as shown in FIG. ~~5B~~ 5C, the chromium layer 115 is etched to form an auxiliary pattern 120 at the center of the quartz substrate 105 (where no trench is formed) and/or at the center of the surface defining the bottom of the trench 110. The margin for the alignment process is relatively great because the sidewall of the auxiliary pattern 120 is not required to coincide with that of the trench 110. In addition, the auxiliary pattern 120 is not likely to be damaged because the auxiliary pattern 120 is formed at a stable planar surface, i.e., at the center of the top surface of the quartz substrate or at the center of the surface defining the bottom of the trench.